

REMARKS

The last Office Action in the above-identified application and the references cited by the Examiner have been carefully considered. The claims have been amended in a sincere effort to define more clearly and more specifically features of Applicants' invention which distinguish over the art of record.

Claims 1-17 which are pending in the application have been rejected as being anticipated under 35 U.S.C. 102(e) by U.S. Patent No. 6,425,084 (Rallis et al.). The Examiner contends that the Rallis et al. patent discloses an input device for securing a token from an unauthorized user and for preventing an unauthorized user from using the computer. In this regard, the Examiner refers to the key device (20) which is used to validate the user to perform operations, and refers to Column 2, Lines 45-67 of the Rallis et al. patent. The Examiner further contends that the Rallis et al. patent discloses that the user must enter the PIN in order to be validated, and refers to Column 1, Lines 61-65 and Column 2, Lines 59-67 of the Rallis et al. patent for disclosing this.

The Examiner further contends that the Rallis et al. patent discloses an encryption key that must have a corresponding decryption key in order to validate, and refers to Column 6, Lines 63-68, with respect to the limitation in the claims regarding a shield for substantially confining reception of the signal to the token sensor. The Examiner further contends that the Rallis et al. patent discloses that the user must align the IR emitter to the port and press a switch in order for information to be transmitted, and refers to Column 5, Lines 44-54 of the Rallis et al. patent for disclosing this.

The Examiner's comments noted in the Office Action are acknowledged and gratefully appreciated. Accordingly, main independent apparatus Claim 1 and main independent method Claim 8 have been amended in a sincere effort to define more specifically and to clarify features of Applicants' invention which distinguish over the Rallis et al. patent.

More specifically, main independent apparatus Claim 1 has been amended to more particularly define the user interface of the input device, which accepts entry of a personal identifier, as having no key pad for entering the personal identifier by the user. Similarly, main independent method Claim 8 has been amended to define the input device, in the step of accepting the token in an input device having a token interface, as having no keypad for entering a personal identifier by the user. It is respectfully submitted that these new limitations in Claims 1 and 8 distinguish the apparatus and method of the present invention from those disclosed in the Rallis et al. patent.

The above limitations were added to Claims 1 and 8 to make it clear that the “input device” of the claimed invention is not the whole computer disclosed in the Rallis et al. patent, and the “user interface” defined by the claims is different from a standard computer keyboard associated with a computer, such as that disclosed in the Rallis et al. patent.

More specifically, each of independent Claims 1 and 8 has been amended to more clearly recite that the user interface which accepts entry of a personal identifier from a user is different from a keyboard associated with a computer or host processing device. This appeared to be one of the concerns of the Examiner, and Applicants wish to point out that the PIN entry device (“user interface”) is entirely different from a keyboard associated with the computer or host processing device. This is clearly shown in Figure 7 of the drawings, where the PIN entry device 272 is separate and entirely different from a keyboard which would be associated with the host computer 102, such as keyboard 114 shown in Figure 1. Please also see Figure 1 of the drawings, where it is clearly shown that keyboard 114 is separate and distinct from PIN entry device 272, which communicates with the host computer separately from keyboard 114.

The Rallis, et al. patent does not teach or suggest the use of a separate and distinct PIN entry device (e.g., the “user interface”). In fact, in the Rallis, et al. patent, the user inputs the PIN using his laptop computer and the regular keyboard associated with the computer.

On Page 6, Paragraph 19 of the Office Action, the Examiner requests the Applicants to show where in the Rallis et al. patent the user inputs the PIN using the laptop computer. In response, the Applicants submit the following argument: In the Rallis et al. patent, there is no

other method or device shown where a PIN may be entered, except obviously the laptop's keyboard. The logical premise and conclusion supporting this contention include the fact that the PIN is entered; therefore, it has to be entered by some device. The laptop in the Rallis et al. patent has a keyboard. The keyboard may be used to enter the PIN. There is no other device mentioned in the Rallis et al. patent which may be used to enter the PIN. Therefore, the PIN must have been entered on the laptop keyboard in the Rallis et al. patent.

Accordingly, it is respectfully urged that the changes now made to independent apparatus Claim 1 and independent method Claim 8 clarify that the computer itself is not the input device referred to in the claims, and that the user interface is not the same as the keyboard which is used in the laptop computer shown in the Rallis et al. patent.

Independent Claims 1 and 8 have also been amended to define more specifically and more particularly that the signal containing the personal identifier produced by the token interface emitter is sent to and received by the token (in method Claim 8, the steps of generating a first signal having information including the user-entered personal identifier and emitting the generated signal in the token interface for reception by a token sensor are similar limitations added to Claim 8 and taken from dependent Claim 9).

In the Rallis et al. patent, the PIN is never sent to the token, because all token communications happen before the PIN is entered by the user. The reference in the Rallis et al. patent, at Column 2, Lines 58-66, cited by the Examiner, only mentions that "a program running on the notebook computer 10 uses the key device serial number and the encryption key, along with a Personal Identification Number (PIN), in a user-validation procedure to prevent operation (i.e., power-up) of the note book computer 10 by an unauthorized user." There is no mention in this passage or anywhere else in the Rallis et al. patent that the PIN is sent to the key device. In fact, in the sequence of the process according to Figure 3A of the Rallis et al. patent, it cannot happen, as the PIN is entered by the user well after all the communication between the computer and the key device (that is, the token) has occurred. There is no disclosure in the Rallis et al. patent that there is a communication which contains the PIN between the computer and the key device, and it is respectfully urged that one cannot assume such a communication just because a PIN is used.

More specifically, in the Rallis, et al. patent, the PIN is not sent to the token, which is contrary to the teachings of the invention defined by Claims 1 and 8 and the dependent claims. From Applicants' careful analysis of the entire Rallis, et al. patent, it is respectfully urged that nowhere in the Rallis, et al. patent is it stated that the PIN is sent to the token. This is also confirmed based on the flow chart shown in Figure 3A of the Rallis, et al. patent. The PIN is entered into the host computer many steps down in the process and is stored on the computer's hard disk in the stored validation record. The encryption key may be used to decrypt the hard drive serial number and PIN, as stated at Column 1, line 64 to Column 2, line 2 of the Rallis, et al. patent, but the PIN is never sent to the key device, as verified by the flow chart shown in Figure 3A of the Rallis, et al. patent. All communications with the token occur before the PIN is entered by the user to the computer, in the Rallis, et al. patent. The PIN is never sent to the key device in the Rallis, et al. patent.

The Rallis, et al. patent states that the encrypted PIN value is stored in the validation record on the hard disk of the computer. The value in the validation record gets decrypted, as shown in Figure 3A and disclosed at Column 2, lines 1 and 2, and the manually-entered PIN is matched to the decrypted PIN, as stated at Column 2, lines 5-7 of the Rallis, et al. patent.

The "super key" disclosed in the Rallis, et al. patent, at Column 4, lines 41-46, cannot be the user entered PIN, as according to the Rallis, et al. patent, "a 'super key' verification step may be inserted at the start of the user validation procedure. The access code procedure requires the key device 20 to verify receipt of a matching code number before it will output the serial number and encryption key data." (Rallis, et al. patent, Column 4, lines 41-49.) This means that all of this occurs well before the user enters the PIN in step 5 of the flow chart shown in Figure 3A of the Rallis, et al. patent.

Accordingly, it is respectfully urged that the Rallis et al. patent does not teach or suggest this additional limitation now added to main independent apparatus Claim 1 and main independent method Claim 8.

Main independent apparatus Claim 1 specifically defines the input device as including a "shield", which is substantially opaque to the signal and which is for substantially confining the reception of the signal to the token sensor. There appears to be some confusion as to what

kind of “shield” is intended to be included in the claimed invention. First, the Examiner appears to argue that because the key in the Rallis et al. patent has to be “aligned” with the transmitter, the signal is shielded. However, it is respectfully urged that merely aligning infrared (IR) devices is normally necessary simply to receive the signal at all. For example, television and tape/DVD player remote controls require that the infrared transmitter on the remote control be directed toward the receiver on the television and tape/DVD player. This does not mean that the signal transmitted by the infrared transmitter cannot reach other areas and devices which are in the same direction as the signal being transmitted. This is not a shield. Certainly, there is no teaching or suggestion in the Rallis et al. patent to confine the communication signals between the device and the token; the Rallis et al. patent merely discloses that the alignment simply enables the communication to take place, but there is no restriction and confinement of the signal disclosed anywhere in the Rallis et al. patent. Thus, shielding is not taught or suggested in the Rallis et al. patent within the meaning of the term used in the claims of the subject application.

Secondly, it is possible that the Examiner is considering the limitation of “shield” in independent apparatus Claim 1 and “shielding” in independent method Claim 8, as amended, as encompassing encryption. The Applicants may be incorrect in this assumption, but believe that this is what the Examiner is considering, when he states that “when the signal is transmitted it contains a shield to ensure no authorized interception of the signal that contains the user specific information (PIN, serial number, encryption key)”, on Page 2, Paragraph 3, in the bridging sentence to Page 3, of the Office Action.

If the Examiner is referring to encryption as a “shield”, encryption is logic and would not be “opaque to the signal”, as specifically defined by main Claims 1 and 8.

In order to clarify the differences between what Applicants intend by the term “shield” or “shielding” in Claims 1 and 8, respectively, from “encryption”, each of the main independent apparatus Claim 1 and main independent method Claim 8 has been amended to more specifically define the “shield” as being a physical shield, which would not encompass encryption, and which would be opaque to the wavelength of the signal. This would clearly define what was intended by the terminology used in Claims 1 and 8 as being physical shielding.

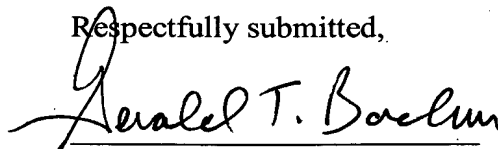
Accordingly, it is respectfully urged that independent apparatus Claim 1 and independent method Claim 8, as now more specifically amended, patentably distinguish over the references of record, and in particular, the Rallis et al. patent, and are allowable. If the Examiner has any questions or comments concerning the amendments made to Claims 1 and 8 to distinguish the invention defined by the claims from the Rallis et al. patent, it is respectfully requested that he contact the undersigned attorney at the telephone number given below.

Claims 2-7 depend directly or indirectly from amended Claim 1 and, accordingly, are respectfully urged to patentably distinguish over the references of record for the same reasons submitted with respect to amended Claim 1.

Claim 9 and Claim 11 have been cancelled, and the limitations found therein have been incorporated into amended independent method Claim 8, along with other limitations discussed above. Accordingly, Claims 10, 12 and 16 have been amended so that they now depend from Claim 8, rather than Claim 9 which has been cancelled. It is respectfully urged that Claims 10 and 12-17, because of their dependency directly or indirectly on Claim 8, as now amended, patentably distinguish over the references of record for the same reasons submitted with respect to amended Claim 8.

In view of the foregoing amendments and remarks, entry of the amendments to Claims 1, 8, 10, 12 and 16, reconsideration of Claims 1-8, 10 and 12-17 and allowance of the application with Claims 1-8, 10 and 12-17 are respectfully solicited.

Respectfully submitted,



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